

areas of the Black and St. Francis Rivers lying within the State of Missouri. These sections were formerly included in the Little Rock, Ark., and Memphis, Tenn., districts, respectively.

MEAN LAKE LEVELS DURING MARCH, 1922.

By UNITED STATES LAKE SURVEY.

[Detroit, Mich., Apr. 4, 1922.]

The following data are reported in the "Notice to Mariners" of the above date:

Data.	Lakes.*			
	Superior.	Michigan and Huron.	Erie.	Ontario.
Mean level during March, 1922:				
Above mean sea level at New York.....	<i>Fect.</i> 601.35	<i>Fect.</i> 579.40	<i>Fect.</i> 571.39	<i>Fect.</i> 245.08
Above or below—				
Mean stage of February, 1922.....	-0.08	+0.17	+0.22	+0.38
Mean stage of March, 1921.....	-0.20	-0.50	-0.73	-0.71
Average stage for March, last 10 years.....	-0.41	-0.66	-0.38	-0.60
Highest recorded March stage.....	-0.93	-3.55	-2.46	-2.73
Lowest recorded March stage.....	+0.69	+0.29	+0.56	+0.78
Average relation of the March level to:				
February level.....		+0.10	+0.10	+0.20
April.....		-0.30	-0.70	-0.70

* Lake St. Clair's level: In March, 573.96 feet.

EFFECT OF WEATHER ON CROPS AND FARMING OPERATIONS, MARCH, 1922.

By J. WARREN SMITH, Meteorologist.

March, 1922, was generally mild east of the Rocky Mountains, except that the first week was unseasonably cold in the Southwest, when the line of freezing temperature extended southward to the west Gulf coast. The freeze did much damage to early truck and early planted potatoes, corn, and cotton in southern Texas, but otherwise frost damage was not important during the month east of the Rockies. The first half was abnormally cold

and disagreeable in most sections west of the Rocky Mountains and was very unfavorable for stock, with considerable loss of range horses and some loss of cattle and sheep. The latter half was warmer and more favorable in that area and the melting snow opened additional ranges in the central and southern Rocky Mountain States.

Rains that had set in the latter part of February over the southern Great Plains, where severe drought had prevailed, continued during March, supplying ample soil moisture, except in some of the more southwestern districts. Winter grains showed improvement in that area, although in western Kansas recovery was slow and wheat continued in a generally poor condition. From the Great Plains eastward, winter grains continued to make satisfactory growth under the influence of ample moisture and mild temperature.

Frequent and heavy rains throughout the central portion of the country seriously interfered with the preparation of soil and the seeding of spring grains. Very little spring wheat had been sown at the close of the month and but little oats in many heavy producing sections in the Ohio and central and upper Mississippi Valleys.

The preparation of ground for corn planting was also much delayed in the interior Valley States, and excessive rains the latter part of the month were unfavorable for early planted corn in the lower Mississippi Valley and in eastern Texas. The weather was favorable for planting corn and cotton in the Southeast the latter part of the month and considerable of both crops were up to a good stand in southern Georgia at its close.

Under the influence of mild weather deciduous fruit buds developed rapidly and at the close of the month early fruits were in bloom northward to Virginia and the lower Ohio Valley. No material frost damage resulted to fruit during the month, although peaches were injured in southwestern Arkansas and some damage was reported in northwestern North Carolina the latter part. Strawberries continued in good condition and were ripening in the lower Mississippi Valley, but some damage resulted to this crop in portions of North Carolina from the cold weather.